FTC FACTS for Consumers

Energy Efficient Light Bulbs:



op quiz: Why use energy-efficient light bulbs?

- (A) They use less energy than standard bulbs.
- (B) They can save you money on your electric bill.
- (C) They produce just as much light as standard bulbs.
- (D) They last longer and don't have to be replaced as often as standard bulbs.
- (E) All of the above.

Answer: (E) All of the above.

Facts for Consumers

Shedding Light on Your Bulb Choices

Picking a light bulb isn't exactly rocket science.

You want it to provide the amount of light you need, to last a long time — particularly if it's for a hard-to-reach place — and not to "break the bank." You want it to be energy efficient as well. The fact is, new energy-efficient light bulbs can save money on your electric bill, while saving energy, too.

What's the catch? Highly efficient compact fluorescent bulbs cost more than regular incandescent bulbs. However, their efficient use of electricity and long operating life can offset the initial pinch of the purchase price.

Among your options are:

- Regular incandescent bulbs. These bulbs, which provide most home lighting, are used in products from nightlights to floodlights. The most common incandescent is a pearshaped bulb with a medium-sized screw-type base. Incandescent bulbs use electricity to heat a filament until it glows white hot, producing light. About 90 percent of the electricity used by incandescent bulbs is lost as heat. These bulbs typically burn for 750 to 1,000 hours or about three hours a day for a year.
- Incandescent spotlights and floodlights. The reflective coating on these bulbs helps direct and focus the light. Commonly known as spotlights or floodlights, these bulbs often are used in recessed ceiling fixtures or outdoors. They burn for about 2,000 hours.
- Halogen bulbs. Sometimes referred to as "tungsten-halogen filament incandescent bulbs," these bulbs contain a small capsule filled with halogen gas, which emits a bright white light. Halogen bulbs produce more light, use less energy and last longer than standard incandescent bulbs of the same wattage, but they cost more. They last from

- 2,000 to 3,000 hours about two to three years.
- General service fluorescent bulbs. These bulbs are more energy efficient than incandescent bulbs because they don't produce heat. They're the thin, long tubes often used in kitchens for under-cabinet lighting, and in garages, workshops and basements. The tubes can last from 10,000 to 20,000 hours—10 to 20 times longer than incandescent bulbs.
- Compact fluorescent bulbs. These bulbs provide as much light as regular incandescent bulbs while using just one-fourth the energy. For example, a 15-watt compact fluorescent bulb yields the same amount of light as a 60-watt incandescent bulb. Compact flourescent bulbs last about 10,000 hours 10 times longer than incandescent bulbs.

Watts to Know

The Federal Trade Commission's Appliance Labeling Rule requires light bulb manufacturers to provide information on packages to help consumers choose the most energy-efficient bulbs for their needs. The Rule applies to all household light bulbs except small, screw-base bulbs like night lights and chandelier bulbs.

The packages for standard bulbs — including halogen, reflector bulbs and compact fluorescent bulbs — must give information about:

light output — how much light the bulb produces, measured in lumens. A 60-watt regular incandescent bulb yields about 855 lumens. A 15-watt compact fluorescent bulb yields about 900 lumens.

energy usage — the total electrical power a bulb uses, measured in watts.

design voltage — if the bulb is not 120 volts. Most bulbs run on 120 volts. Light output and

Facts for Consumers

efficiency decrease when you use a bulb with a 125 or 130 design voltage in a region that provides electrical service at 120 volts.

average life in hours — how long you can expect the bulb to last.

number — number of light bulbs in the package.

Replacement Value

Energy-efficient bulbs may cost you more initially, but they can save you money in the long run in out-of-pocket expenses. Here's an example:

Suppose your living room table lamp is turned on for 1,000 hours a year, and your local electric utility charges eight cents per kilowatt hour. A 15-watt compact fluorescent bulb may cost you \$20, considerably more than the dollar or so that you'd spend for a standard 60-watt bulb that provides the same amount of light. But the compact fluorescent bulb should last for 10 years, while the standard bulb likely will be replaced every year. The compact fluorescent bulb costs about \$1.20 a year to operate; the standard bulb costs \$4.80. For a one-time initial extra payment of \$19.00, you can receive \$4.60 in savings each year (\$3.60 electricity cost and \$1.00 bulb cost) for 10 years.

The benefits of compact fluorescent bulbs are clear: lower operating costs, longer operating life and more efficient use of energy.

For More Information

The Federal Trade Commission offers a wide range of business and consumer education information online at ftc.gov. This information also is available from the toll-free helpline at 1-877-FTC-HELP (382-4357) (TDD: 202-326-2502).

The Department of Energy's Energy Efficiency and Renewable Energy Network offers a clearinghouse of energy-efficiency information at www.eren.doe.gov. This information also is

available by calling the toll-free hotline at 1-800-DOE-EREC (363-3732) (TDD: 1-800-273-2957) or by writing: U.S. Department of Energy – EREC, PO Box 3048, Merrifield, VA 22116.

Your state and local energy offices and local utility company also may be valuable sources of information.

Facts for Consumers



Federal Trade Commission

Bureau of Consumer Protection
Office of Consumer and Business Education

Produced in cooperation with the U.S. Department of Energy